its style longer than the corolla, and cloven half way down. The species perfoliatum, exclusively an inhabitant of America, is abundantly distinguished from the rest, by the peculiar form of its leaves, indicated in its name. Michaux has altered the specific name to *connatum* I think injudiciously.

The stems of this plant are erect, round, hairy branched at top only. The leaves, which are perforated by the stem, are rather perfoliate than connate, since they have not the character of two leaves joined together, but of one entire leaf, having its four principal veins proceeding at right angles from the four quarters of the stem, two of them being situated in the place of the supposed junction. The upper leaves however are generally divided into pairs. The main leaves are acuminate, decreasing gradually in breadth from the stem, where they are widest, to the extremities. They are serrated, wrinkled, pale underneath, and hairy, especially on the veins. Flowers in corymbs with hairy peduncles. Calyx cylindrical, imbricate, the scales lanceolate, acute, hairy. Each calyx contains about twelve or fifteen florets, which are tubular, with fine spreading segments, and surrounded with a rough down. The stamens in each consist of five soft filaments, with blackish anthers

united with a tube. Style filiform, divided into two branches, which project above the flower. Seeds oblong on a naked receptacle.

Every part of the Eupatorium has an intensely bitter taste, combined with a flavour peculiar to the plant, but without astringency or acrimony. The leaves and flowers abound in a bitter extractive matter, in which the important qualities of the plant seem to reside. I find this principle to be alike soluble in water and alcohol, imparting its sensible qualities to both, and neither solution being rendered turbid, at least for some time, by the addition of the other solvent. It forms copious precipitates with many of the metallic salts, such as muriate of tin, nitrate of mercury, nitrate of silver, and acetate of lead. Of the mineral acids, the sulphuric and muriatic form slight precipitates with the aqueous decoction; the oxymuriatic, a more copious one; the nitric, in my experiments, gave no precipitate, but changed the colour to a red. In the alcoholic solution the oxymuriatic alone formed an immediate precipitate. Tannin exists very sparingly in this plant. A solution of isinglass produced a slight precipitate from the tincture, and a hardly perceptible turbidness in separate decoctions of the leaves and flowers. Sulphate of iron gave a dark green precipitate, which par-

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